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ABSTRACT

This paper discusses ideas for teachers to increase successful comprehension of their questions by language delayed students. Three kinds of questioning techniques are described. Most often used by teachers are "WH-words" (e.g., who, what, how). Noun-verb reversal (e.g., Can you come to the group?) follows in amount of usage. The least used questioning technique is raised intonation (e.g., This one? The pencil?). Failure to respond to any of these question signals does not necessarily mean the student does not know the answer. Question forms often are not adequately coded into sign, and hearing-impaired students may not recognize ordinarily routine strategies signaling questions. Teachers, therefore, should be careful to make question forms comprehensible. A table of "question prompts" provides teachers with alternatives to repeating questions numerous times. Educators can use the prompts to ask questions with brief answers or to encourage discussion. Cognitively challenging questions can be task analyzed by using a four-quadrant language proficiency matrix, in which a line of context intersects with a line of cognition. Classroom teachers often ask context-imbedded, cognitively undemanding questions, while the opposite might be more effective. Teachers should also ask questions at a pace that provides adequate opportunity for students to practice cognitive operations. By setting goals, teachers may be able to help language-impaired children better understand and answer their questions. Four tables and nine references are attached. (TES)

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Three Goals for Teachers: Asking Comprehensible Questions of Language Delayed Students

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Three Goals for Teachers: Asking Comprehensible Questions of Language Delayed Students

Questioning is one of the most popular techniques used by teachers for skill exercising (Barry, 1987). Teachers can signal questions with WH-words (e.g., who, what, how), noun-verb reversal (e.g., Can you come to group now?), or with raised intonation (e.g., This one? The pencil? OK?). A student's response to such queries can maintain a conversation or satisfy the teacher that desired knowledge of an event, object, or process has been acquired. Does failure to response to questioning mean a student doesn't "know the answer?" Three concepts for consideration, aimed at increasing successful comprehension of teachers' questions by language delayed learners are discussed in this paper.

1. In 50 classrooms in which language samples from teachers were videotaped, teachers used all three types of questioning strategies define above. WH-questions were used most often, followed by reversal questions. Queries marked by intonation-only were used least often.

In situations where sign is used to augment speech, question forms should be signed in a manner that corresponds closely with speech and signals students that a question has been asked. Luetke-Stahlman (in press) found in analyzing language samples of teachers simultaneously communicating in the classroom to hearing-impaired students that questions were not always signed so that the question form was coded. WH-questions were encoded 85% of the time, reversals 80% of the time, and intonation-only forms 75% of time by teachers using Seeing Essential

English and Signing Exact English. These percentages, by question type, were much lower (i.e. 57%, 50%, and 33%) for teachers using Signed/ Manual English and Pidgin Signed English. In addition, the signed question marker was used to make unmarked questions comprehensible to students who could not hear the teacher's intonation only in 32% of all samples. Hearing-impaired children, many of whom do not have an age-appropriate grasp of the English language, also may not realize that Wh-words and inverted word order signal questions. Therefore, teachers should be careful to make question forms comprehensible to students. Goals can be set by teachers to completely say, or say and sign, questions (and use the signed question marker as appropriate) with language-delayed students.

Question prompts (adapted from Moeller and McConkey, 1984) can help language-delayed students understand the nature of the question being asked and can be used in conjunction with Bloom's cognitive taxonomy (Bloom & Krathwohl, 1977). These prompts appear in Table 1 and provide teachers with alternatives to repeating questions numerous times and finally telling students the answer.

Insert Table 1 about here

Standard focusing phrase with repetition. Sometimes a teacher asks a student a question the student does not realize that an answer is expected. This prompt calls attention to the demands of the situation and is analogous to a "listening set" in auditory training. You are overtly saying, "listen to my question."

Exaggeration of the interrogative. In this category you use the

relevant question word at a place in the interrogative where it can be emphasized.

Multiple choice. If a student cannot answer your question, it may be helpful to provide a cloze set of possible answers. We suggest that you give at least three different answers for selection. Also be careful to randomly alter the placement of the correct response so the student does not depend on it's location (e.g., always the last choice) as a clue.

Relevant comparison. In using the strategy of relevant comparison you provide the student with part of a possible listing of information that is needed to answer your question. The information you provide should not always be accurate.

Visualization. Visualizations can link content to verbal (signed or spoken) description. A visualization provides a student with a cognitive crutch with which to discuss the desired information.

Model with related content. A model provides students with the grammatical form of an answer so that they can concentrate on the content of what is being discussed. If a student does not answer a question or answers it incorrectly, you can ask an adult or another student the same question. After a model of the desired answer has been given, ask the first student a similar question, one that uses the same grammatical form, but which is about slightly different content.

Analogous example. When a student cannot respond to your question, it may be helpful to provide him/her with an analogous situation. This prompt gives the student an opportunity to think about a concept or process without being told the very information you are trying to ascertain.

These prompts have proven helpful in teaching hearing-impaired students of all ages and who possess various degrees of hearing loss. Educators are encouraged to set a goal for themselves to incorporate at least three of these prompts into each lesson.

2. Teachers should ask questions in a pace and manner that provides opportunities for students to practice cognitive operations. Allowing the student ample time to respond, having them paraphrase other

students' questions, and having students discuss, form, and ask questions to peers about academic material have been suggested as strategies that increase hearing students' question comprehension (Barry, 1987).

Significant adults can use the prompts to ask both closed and open questions. Closed questions have a specific answer; open questions could have many answers. Teachers should be cognizant of asking questions of older students which require them to evaluate, judge, synthesize, predict, etc. (the higher Bloom and Krathwohl, 1977, skills). For example, a teacher might ask a student to compare the Civil War with World War I using a visualization. The student might use descriptions that compare the two events or descriptions that contrast the two events. But to require the student to encode more complex meanings, the teacher might then ask the student to make a prediction about a future war or evaluate what was beneficial about the two wars being reviewed. This open-ended question will stimulate the use of connectives such as "and," "because," and "but." The use of open-ended questions provide opportunities for students to use more complex language (Bloom & Lahey, 1978).

An example of how these strategies might be used to encourage hearing impaired students to find relationships, make inferences, and draw conclusions (i.e., synthesis) appears in Table 2. Educators are encouraged to set a goal for themselves to ask one cognitively-challenging question of each student during each lesson.

Insert Table 2 about here

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3. Cognitively challenging questions can be task analyzed by using a language proficiency matrix described by Cummins (1984). This matrix consists of two continua that intersect, forming four quadrants. The continuum of context moves from left to right; the continuum of cognition moves from bottom to top. In Table 3, the cognitive taxonomy

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Insert Table 3 about here

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of Bloom and Krathwohl (1977) has been placed on this vertical axis. A similar, helpful summary of question levels appears in Table 4.

Insert Table 4 about here

Research by author has indicated the classroom teachers (and parents, as well) often ask questions which can be characterized as context embedded, cognitively undemanding (e.g. What's this? Do you need a pencil?). Yet, the importance of asking context-reduced, cognitive-demanding questions has been linked to literacy and success by Aschner (1961) Frager (1986) Hyman (1979) Winne (1977) McNamara (1981). Educators are encouraged to set a goal for temselves to use the Cummins model to task analyze their questions to students and be systematic in their use of various forms

By setting goals for themselves as question-askers, teachers (and parents) may be able to change how well and how often language-impaired

children answer their questions. Longer conversations and confidence that students understand targeted concepts could be the outcome of this effort.

References

Aschner, M. (1961). Asking questions to trigger thinking. NEA Journal, 50, 44-46. Barry, B. (1987). Practical strategies for the teaching of thinking. Boston: Allyn and Bacon, Inc.

Bloom, B. S., & Krathwohl, D. R. (1977). Taxonomy of educational objectives: Handbook I. New York: Longman Publishers.

Cummins, J. (1984)

Frager, A. (1986). How can we improve teacher questioning? A good question. Reading improvement, 23(2), 145-151.

Hyman, R.T. (1979). Strategic questioning. New Jersey: Prentice-Hall.

Luetke-Stahlman, B. (in preparation). An empirical investigation of teachers' use of questions in bimodal, academic contexts.

McNamara, D. (February, 1981) Teaching skill: The question of questioning. Educational Research, 23(2), 104-109.

Moeller, M. P., & McConkey, A. (1984). Language intervention with preschool deaf children: A cognitive/linguistic approach. In W. H. Perkins (Ed.), Current therapy of communication disorders (pp. 11-27). New York: Thieme-Stratton, Inc.

Winne, P.H. (1979). Experiments relating to teachers' use of higher cognitive questions to student achievement. Review of Educational Research, 49(1), 13-49.

Table 1 **Examination of Question Prompt Effectiveness**
Work by Moeller, Eccarius, Renninger, Bryski, and Luetke-Stahlman.

Question Prompt Type	Strategy Description Preschool	Math	Spelling	World History/ Social Studies	Science
Standard focusing phrase with repetition	"Listen to the question" signals the student that his/her response was in error. Direct his/her attention to the repetition; highlights.	"Listen to the question." How many boys are in this classroom?	"Listen to the question." How many syllables are in the word buttercup?"	"Listen to the question." What year did Columbus sail?	"Listen to the question." At what degree does coil?
	In all of the examples, the question was asked first and the student's response was incorrect. The question is repeated emphasizing key words.				
Sequence	What day is this? Monday, Tuesday, ____?				
Listing	Who is in your family? Mom, Dad, _____?				
Exaggeration of the Interrogative	Which of these coats belongs to Hannah? vs. I have three coats. Which one is Hannah's?	"When we keep track of accounts in our check books, we can either add or subtract our money. If I am depositing money, what operation do I use?"	"I know you know how to spell cat! How do you spell cat?"	"There are 7 continents in the world. Which one does the United States belong to?"	"Water boils at a certain temperature? What temperature does water boil at?"
Multiple Choice	"What animals are near extinction?" No response. "Which is near extinction, cow, gorilla, or pig?" Allow for recognition of relevant information.	"How do you find the area of a circle?" No response. "Is the formula, length x width or x radius squared, or x the ? distance?	"What is a noun?" No response. "Does a noun name a person, place or thing, show an action, or describe a verb?	"What is the name of a communist country?" No response. "Which is communist, the United States, Russia, or France?"	"Name a mammal." No response. "Which is a mammal: a monkey, a frog, or a butterfly?"
Relevant Comparison Yes/No	"What does a hockey player need? No response. "Does a hockey player need skates?" "Yes!" "Good!" What else does he need?"	"What are the multiples of 3, up to 21?" No response. Is 10 a multiple of 3?" "No." "Good, What are the multiples of 3?"	"Does jump follow the 1+1+1 rule? No response. "Does jump have 1 syllable? "Yes." "Good." "Does jump have 1 vowel?" "Yes." "Great." "Does jump have 1 final consonant?" "No." "Wonderful." "Does jump follow the 1+1+1 rule?	When looking at a map, what states does the Mississippi River touch?" No response. "Does it touch Illinois?" "Yes" "What states does the Mississippi touch?	"What are the parts of an atom?" No response. "Are electrons parts of atoms?" "Yes" "Good, what are parts of an atom?"
Visualization of Relationships	"How are an apple and a cookie alike? No response. Draw a semantic feature chart.	1 + 2 = 3 0 1 2 3 4 5 6	"Does jump follow the 1+1+1 rule?" No response.	"Which states have more people?"	Histogram Graph: Growing Plants
Model example with related content	Mary Pattie, where is your aid? No response. Breeze, where is your aid? Good. Mary Pattie where is your lunch box?	"Debbie, how many inches in a foot?" Respond incorrectly. "Jane, how many inches in a foot?" "12" "Excellent." "Debbie how many inches in 1/2 of a foot?" "6" "Great job!"	"Cathy Jo how do you spell receive?" "Receive!" "Janice, how do you spell receive?" Spells it correctly. "Good!" "Cathy Jo how do you spell deceive?" Spells it with the ei correct. "Wonderful!"	"Joe, what are three branches of government?" wrong response. "Timmy, what are the 3 branches?" Timmy responds. "Good!" "Joe, which branch is made up of the laws?" Joe responds. "Excellent"	"Marcy, how can you measure the volume of some solid?" Answers incorrectly. "Kent, same question." Answers correctly. "Marcy, what does water displacement measure?" "Volume."
Analogous Examples	"What are alligators covered with?" No response. "Seals are covered with fur. What are alligators covered with?"	"How much is 1+2?" No response. "2+1+3, how much is 1+2?"	"Do you drop the 'e' before adding -ing in the word shape?" No response. "You drop the 'e' before adding -ing in the word care--caring." "Do you drop the 'e' before adding -ing in share?"	What continent is east of Europe?" No response. "Africa is south of Europe. What continent is east of Europe?"	"What does your digestive system do? No response. "Your circulatory system moves blood through your body. What does your digestive system do?"

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Table 2

Using the question prompt strategies to increase students ability to synthesize information

Standard focusing: Listen to the question: Why was the pig who built the brick house rewarded for his hard work?

Exaggeration of the interrogative: Tell me a new ending for the story? How could the "Three Pigs" end in a different way?

Visualization: Which materials would make good houses?

	easy to locate	can build in short time	will keep dangerous animals out	can have fireplace
brick				
straw				
sticks				
concrete				
snow				

Model with related content: Hannah, what kind of house do you think the pig with the straw house will build next time? No response. Ask Breeze the same question and get correct answer. Hannah, what kind of house do you think the pig with the stick house will build next time?

Analogous example: Valerie, brick kept the wolf out. What do you think about a cement house? Would that work as well as brick for the pigs?

Table 3

Context and cognitive requirements of question comprehension.

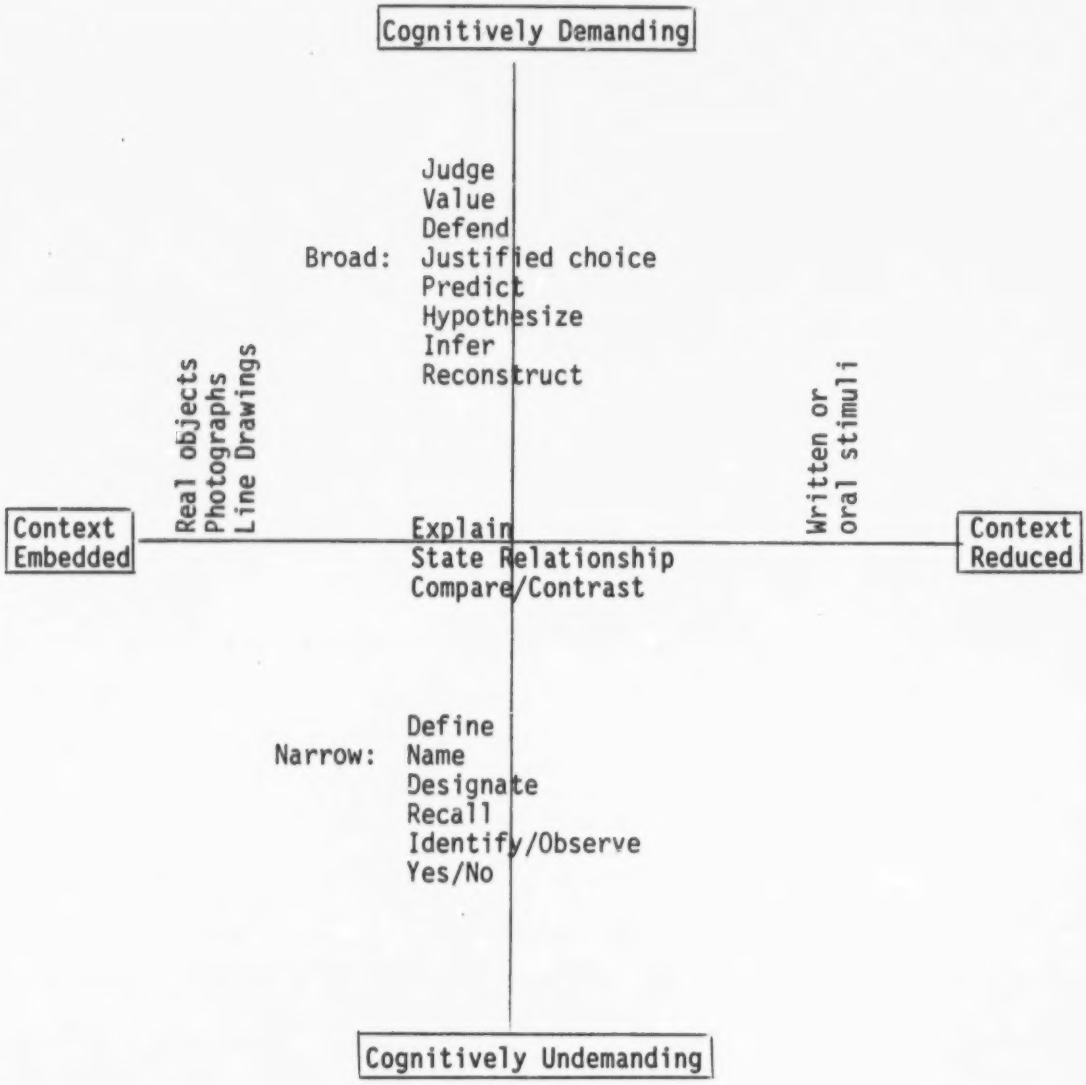

Table 4

Summary of Question Levels

Question Level	Brief Description	Key Words
Memory	Recall or recognition of facts	Who, what, where, How many Is, are, were Why
Translation	Change information into another symbolic form	Retell Draw a picture
Interpretation	Discover relationships	Compare/contrast What reason/evidence Describe Rearrange events
Application	Solve life-like problems using known information (only one answer is correct)	What would happen if What other reasons What would you do if Compute . . . How does . . . affect
Analysis	Give reasons based on parts	What will happen What is the purpose Find evidence Why Conclude
Synthesis	Use imagination to solve the problem	What would you do if Pretend What ways might Develop a story Hypothesize
Evaluation	Establish standards and determine how ideas meet them	Should Justify your choice Do you agree . . . Why

Adapted from Meehan, 1970